

**IN THE CLAIMS:**

**Please amend the claims so as to read as follows:**

1. (Cancelled, without prejudice)
2. (Cancelled, without prejudice)
3. (Cancelled, without prejudice)
4. (Cancelled, without prejudice)
5. (Original) An optical disc including a substrate having pits having at least two different depths formed therein, wherein  
the pits have their depths adjusted such that polarity of a signal representing difference in intensity distribution of a reflected light beam along a tangential direction of a pit string differ at a pit having a first depth from a pit having a second depth.
6. (Original) An optical disc including a substrate having pits having at least two different depths formed therein, wherein  
information is recorded in accordance with a polarity of a signal representing difference in intensity distribution of a reflected light beam along a tangential direction of a pit string, at said pits having at least two different depths.

7. (Original) An optical disc including a substrate having pits having at least two different depths formed therein, wherein  
information is recorded by a combination of a signal in accordance with quantity of reflected light beam from said pits having at least two different depths and a signal indicative of a difference in intensity distribution of the reflected light beam along a tangential direction of a pit string.
8. (Original) An optical disc including a substrate having pits having at least two different depths formed therein, wherein  
main information is recorded by a form of the pits, and additional information is recorded by the depth of a pit.
9. (Original) The optical disc according to claim 8, wherein the pit having said additional information is formed deeper than a prescribed depth.
10. (Original) The optical disc according to claim 8, wherein  
said additional information is a synchronizing signal for reproducing said optical disc.

11. (Original) The optical disc according to claim 8, wherein said additional information is address information corresponding to said main information.
12. (Original) The optical disc according to claim 8, wherein said additional information is a de-scramble key of said main information.
13. (Original) The optical disc according to claim 8, wherein said additional information is error correction information for said main information.
14. (Original) The optical disc according to claim 8, wherein unit of recording of said additional information is recorded in association with a unit of recording of said main information.
15. (Original) An optical disc reproducing device, comprising:
  - a first detecting unit detecting a first signal in accordance with a quantity of reflected light beam from an optical disc;
  - a second detecting unit detecting a second signal representing a difference in intensity distribution of the reflected light beam along a tangential direction of a pit string of said optical disc; and
  - a reproducing unit reproducing information recorded on said optical disc based on the first signal detected by said first detecting unit and the second signal detected by said second detecting unit

16. (Original) The optical disc reproducing device according to claim 15,  
wherein said reproducing unit reproduces information recorded on said  
optical disc based on polarity of the second signal detected by said  
second detecting unit.
17. (Original) The optical disc reproducing device according to claim 16,  
wherein said reproducing unit reproduces three-valued information  
recorded on said optical disc.
18. (Original) The optical disc reproducing device according to claim 15,  
wherein  
said reproducing unit includes a first comparing circuit comparing  
the second signal detected by said second detecting unit  
with first reference value and outputting a positive signal  
when voltage of said second signal is not lower than said  
first reference value,  
a second comparing circuit comparing the second signal detected  
by said second detecting unit with a second reference value,  
and outputting a negative signal when voltage of said  
second signal is not higher than said second reference  
value, and  
an additional circuit adding the positive signal output from said  
first comparing circuit and the negative signal output from  
said second comparing circuit.

19. (Original) The optical disc reproducing device according to claim 15,  
wherein

said reproducing unit includes a first comparing circuit comparing  
the second signal detected by said second detecting unit  
with a first reference value,  
a second comparing circuit comparing the second signal detected  
by said second detecting unit with a second reference value,  
and  
a latch circuit holding a result of comparison by said first  
comparing circuit and a result of comparison by said  
second comparison circuit, at a point transition of the first  
signal output from said first detecting unit.

20. (Original) An optical disc reproducing device, comprising:

a main information reproducing unit reproducing main  
information by a reflected light beam from a pit formed on a  
substrate of the optical disc; and  
an additional information reproducing unit reproducing additional  
information by detecting a depth of said pit.

21. (Original) The optical disc reproducing device according to claim 20, further  
comprising a controller limiting reproduction of the main  
information by said main information reproducing unit when said  
additional information reproducing unit is unable to reproduce  
said additional information.

22. (Original) The optical disc reproducing device according to claim 20, further comprising:

a display unit displaying, when said additional information reproducing unit is unable to reproduce said additional information, the fact that the additional information cannot be reproduced.

23. (Original) The optical disc reproducing device according to claim 20, further comprising:

a servo control unit outputting a tracking servo signal; and  
a controller outputting the tracking servo signal output from said servo control unit when said additional information reproducing unit is unable to reproduce said additional information.

24. (Original) The optical disc reproducing device according to claim 20, further comprising:

a servo control unit outputting a tracking servo signal; and  
a controller inverting polarity of the tracking servo signal output from said servo control unit when said additional information reproducing unit is unable to reproduce said additional information.

25. (Original) The optical disc reproducing device according to claim 20, further comprising:

a counter counting number of additional information; and  
a controller controlling reproduction of the additional information  
by said additional information reproducing unit based on  
the value of said counter.

26. (Original) The optical disc reproducing device according to claim 20,  
comprising a controller controlling said additional information  
reproducing unit so that the additional information is reproduced,  
when contents of the main information cannot be reproduced by  
said main information reproducing unit.

27. (Original) The optical disc reproducing device according to claim 20, further  
comprising a controller controlling said additional information  
reproducing unit such that the additional information is  
reproduced in synchronization with reproduction of the main  
information by said main information reproducing unit.

28. (Original) The optical disc reproducing unit according to claim 20, further  
comprising a controller limiting reproduction of the main  
information by said main information reproducing unit when said  
additional information cannot be reproduced by said additional  
information reproducing unit.

29. (Original) A method of reproduction, comprising the steps of:  
detecting a signal based on a quantity of light beam reflected from  
an optical disc;  
detecting a second signal indicative of a difference in intensity  
distribution of the reflected light beam along a tangential  
direction of a pit string on said optical disc;  
reproducing the main information recorded on said optical disc  
based on said detected first signal; and  
reproducing additional information recorded on said optical disc  
based on said detected second signal.
30. (Original) The method of reproduction according to claim 29, wherein  
said step of reproducing additional information recorded on said  
optical disc includes the step of reproducing the additional  
information recorded on said optical disc based on polarity of said  
second signal.
31. (Original) The method of reproduction according to claim 30, wherein  
said step of reproducing additional information recorded on said  
optical disc includes the step of reproducing three-valued  
information recorded on said optical disc.



32. (Original) The method of reproduction according to claim 29, wherein  
said step of reproducing the additional information recorded on  
said optical disc includes the step of comparing said second  
signal with a first reference value and outputting a positive  
signal when voltage of said second signal is not lower than  
said first reference value;  
the step of comparing said second signal with a second reference  
value and outputting a negative signal when voltage of said  
second signal is not higher than said second reference  
value, and  
adding said output positive signal and the negative signal.

33. (Original) The method of reproduction according to claim 29, wherein  
said step of reproducing additional information recorded on said  
optical disc includes the steps of:  
comparing said second signal with a first reference  
value,  
comparing said second signal with a second  
reference value, and  
holding the result of the comparison of said second  
signal with said first reference value and the  
result of comparison of said second signal  
with said second reference value, at a point of  
transition of said first signal.

34. (Cancelled, without prejudice)

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